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ROCHESTER INSTITUTE OF TECHNOLOGY

A Thesis Submitted to the Faculty of  
The College of Fine and Applied Arts  
in Candidacy for the Degree of  
MASTER OF FINE ARTS

Abstract Forms in Nature

By

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## Introduction

The imagery in my quilts is inspired by three energetic forms in nature: the magnetic field, the spiralling vortex and the radiating pattern. By the breaking up of light, color and geometric shapes, and by the use of gestural brush strokes, I have expressed abstractly the sense of movement that these energetic forms create. This powerful sense of energetic movement is important to me and my work because it is the expression of transformation and change that persists in life.

It is not merely the shape, pattern and texture of nature which intrigues me, but the images of nature in flux-- both flowing and metamorphosing-- which truly captures my imagination. In my thesis work I have tried to create images which represent the elemental forces of nature caught in a hair's breadth of time.

Since I became a serious student of art in college I have become increasingly fascinated by the changing shape of nature, and I have attempted to convey my feeling about nature's flow in my art. The very first quilt I made at R.I.T. (figure 1) portrayed the life of a silkworm from larvae, to cocoon, to moth, to egg, to larvae, etc. It showed movement and transformation-- a continuum and a cycle of life. I worked in warm glowing colors-- the hues of life and procreation. In the center of the quilt two moths are mating-- the beginning and culmination of the life cycle. I feel that it is very important to have the sense that I am growing and evolving as an artist, just as the silkworm evolves from stage to stage.

For my thesis project I have moved from the realm of the representational (as with the silkworm) to the abstract. In order to abstract these energetic forms, which are to some extent abstract concepts themselves (one cannot see a magnetic field, for instance) I sought to learn more about the forces of nature which create radiating patterns, spiral vortices and magnetic fields.

In this way I hoped to find the meaning behind these natural forms. As an artist, I sought to relate my own feelings and affinities to the patterns I was studying.

When drawing such natural forms, it is difficult to capture their energetic quality. Energy is not actually seen, but as a result of the invention of the telescope, photography, space travel, etc., it has become more apparent to us. Energetic forms such as magnetic fields, stellar radiations, cosmic clouds, swirling weather patterns, wave action and whirlpools in water represent the purist primary expressions of natural forces. "The basic forms of energy serve as the patterns-- and combination of pattern-- for most of the creations in nature."<sup>1</sup>

The spiral form in figure 2 is a curving line that increases its radius as it circles around its central pole. I think of it as a vortex-- a swirling funnel of water, a momentary shape of nature exhibiting beauty, grace and control. The vortex is one of the most powerful and beautiful forms in nature. It depicts in miniature the great starry universe; its orientation in space corresponds to the fixed stars and its inner laws of movement to the solar system with its planets. "The sun itself corresponds to the suction center of the vortex, where the speed, theoretically, is infinitely great."<sup>2</sup>

I think of the spiral-vortex pattern in figure 2 as a teeming pool of life. Life itself began in a water-based



chemical cocktail, and I have used a variety of colors to represent this mix. The intense colors of the spiral form in figure 2 also play a vital role in activating an effect of movement. The contrast of the red color, which unlike the cooler colors, has a different texture and a consistent shape which cause the eye to dart quickly about. It seems in some ways a chaotic image to me, and yet the spiral-vortex imposes order-- "an order born out of chaos."<sup>3</sup>

The radiating form in figure 3 is similar to the spiral form in that it is organized around a central point. The center of the radiating form can sometimes be seen in the circling rings caused by the splash of a stone thrown into a still pond, a snowflake, a spider-web, or a starfish. In other radiating forms the center point is hidden within the confines of a sphere as in galactic forms or a thistle or a seed cluster.

The geometric colored shapes of the radiating form in figure 3 expand outward from the warm yellow center to the cooler blue-green colors at the outer edge. They become as much a part of the radiating form as do the gestural splatters of color. It is another life-giving pattern, another example of order and harmony in the natural sphere. The individual dyed pieces of fabric give the quilt its overall pattern of color, while the splatter effect illustrates random and exciting combinations of life-- within an overall framework of order. I

achieved this splatter effect by dipping my paint brush in hot wax and flicking it onto the fabric. I felt that the best way to achieve a random effect was through a random process. It was thoroughly enjoyable.

The magnetic field in figures 4, 5, 6, and 7 is another natural force that permeates all of nature. Like the wind, a magnetic field can only be seen through its effect on solid objects. And yet, a magnetic field has a very definite pattern. The action of two poles of a magnet upon a sheet of metal filings clearly shows the pattern of force between the poles. The fields radiate in all directions from each pole but are strongest in the area between the poles. The magnetic field has a definite relationship to both the circular patterns of the spiral and the radiating forms. Seen from the side view the magnetic field seems to be a continuous circling pattern. When viewed from the top at either pole it is a direct likeness of the radiating form. The shape of the magnetic field is echoed in other natural objects. The lines that form the sections of a tangerine, or the ribs of a pumpkin that meet in the center, reflect the field form.

I chose these particular forms in nature-- the radiating form, the spiral, and the magnetic field,-- for the beauty and symmetry of their movement-- movement that suggests to me the fluid grace and playfulness of dance, as well as the stately progression of the planets



and the tides. I have tried to evoke movement in my images through the varied shapes of the fabric pieces, the light produced by the colors, and the gesture of the lines. I see the movement as being musical, as if the light, the color, the shapes, and the lines, were the scoring of a movement ensemble.

The movement is also communicated by the arrangement of geometric shapes. Although organic shapes suggest life, the geometric shapes serve not as a background but as a ground to share with the organic surface and surface action. The geometric pieces of fabric are not exclusively used as a means of constructing a large piece of fabric. These underlying geometric shapes function also as movement with the natural forms-- they help activate the field and give it scale. Rather than drawing attention to themselves, the geometric shapes become more than mere pattern; instead they integrate the whole.

One advantage of the quilting process over painting, is the ease with which one can break up and rearrange the component parts of the quilt. I take particular pleasure in arranging the pieces and then standing back to determine how they enhance or detract from the image as a whole. It is one additional step in the artmaking process over which I can exercise control and which enables me to construct my own special vision.

Working in pieces rather than on one large canvas also helps me to think more abstractly. Simply by re-

arranging the pieces I can provide myself with a new and exciting representation of an image, which, in turn, stimulates my imagination so that I see more and more possibilities in the work.

By breaking up the shapes, colors, gestural lines and brush strokes in my quilted and pieced images, I have attempted to create a dynamic and powerful sense of motion. Take for example "Magnetic Field I" (figure 4). There the lines of force of the magnetic field do not follow directly from one square of fabric to the next, but are slightly (and sometimes more than slightly) skewed. The effect for me, is one of great energy and power held in control by the magnetic field.

The long vertical strips in the "Magnetic Field IV" (figure 7) break up the image in such a way that the eye moves quickly back and forth between the two paintings which were cut up and put back together again. The blocks in the "Magnetic Field" (figure 5) show the continuum of magnetic fields which shade and flow into one another when they are placed side by side. The grid structure of figure 8 also amplifies the movement of the organic shapes within each square.

Though the swirling shapes of figure 8 proceed my thesis project (it was the second quilt I made at R.I.T.) I think of it as the most abstract example of a simple swirling motion. Here the images are arranged so they do not flow naturally into one another, but establish a

sort of visual counterpoint. However, I feel that the effect has been to create a larger image which is full of movement, dance and cheerful animation.

The painting process is a direct gestural movement that further enhances the movement of the image. Through the dance-like act of painting I have tried to communicate the feelings and thoughts that put the gesture into motion. I have taken the approach of the Abstract Expressionists who used the surface of the canvas as a field of action whereby the paint is applied with quick, spontaneous gestures. In this way I sought to create (and I believe I have) energetic brush strokes which have a dynamic expressiveness all their own. In painting the magnetic field forms (figures 4, 7), the radiating form (figure 3), and the swirling form (figure 8), the brush strokes, like choreographic notations result from the rhythmic dancing movement of the arms and body. This was particularly true in painting the two images that make up "Magnetic Field IV" (figure 7). My hope is that when the viewer looks at the movement of the form and brush strokes, he too will be drawn into the twisting and turning of the dance.

Even where I have not applied swift brush strokes to the fabric, I have attempted to convey motion in other ways. In "Magnetic Field III" (figure 6) I have used a batik process to create the small oval shapes that swirl around the magnetic poles.

I have also attempted to use color to render the appearance of motion in my quilts. The successive gradation of the color spectrum in "Magnetic Field II" (figure 5) emphasizes the continuous shifting of magnetic fields. In "Magnetic Field IV" (figure 7) the color and light is scattered about, though it still follows the directional lines of the magnetic field. In "Magnetic Field III" (figure 6) the color shifts from yellow at the outer edges to blue-green in the center. My aim here was to accentuate the inward spiralling motion of the oval shapes.

The manipulation of color and shape, the arrangement of individual pieces of fabric, and a brisk, spontaneous style of painting are the methods I have used to create the illusion of energetic movement on a picture surface. These expressive elements can play calmly or frantically over the surface; they can plunge deeply back into space; they can be hesitant or audacious, swift or slow, just as are the motions of the natural forms that inspired them.

Through these techniques I believe I have expressed my sense of the beauty and harmony of the naturally occurring forces which create spirals, radiating patterns and magnetic fields.

Quiltmaking for me is both an intellectual process of designing a pictorial image and a sensual, physical experience of working with fabric. The duality of this

artistic endeavor satisfies the intellectual side of me and the side which revels in the craft.

I love fabric, especially silk-- the way it absorbs the dyes, whether painted directly with a brush or submerged into a dye-pot, the relaxation of stitching it, and the friendship and harmony of it all. I feel satisfied as a craftsperson when I've controlled the manipulation of the medium, my art. I want the finished work to incorporate and communicate the pleasure I had in making it.

My quilts are objects to be seen and felt. Quilt-making, I believe, is a means of creating an image which will stand alone as a visual statement. But it is equally important to me that the seductive nature of the fabric invites the viewer to touch. I hope my quilts are appreciated on both levels.



## Conclusion

During my undergraduate education at the Maryland Institute of Art I was content to dabble in the various fiber techniques. At the time I was not very directed in my work, and this is apparent in the range of techniques and styles in my slide presentation. But at the time, I was just discovering and learning these techniques-- my concentration within my textile major was on the learning skills.

It was at the Maryland Institute that I discovered my affinity for the quilting process. My first attempts in this medium were representational pieces, which I still take pride in, but which also remind me of my change and growth as an artist.

There have been many influences on my art in the course of my two years at R.I.T. During this period I have become increasingly aware of art trends and the natural world about me. I discovered the value of the library; I love to wander through it and discover new artists or learn more about the artists I already know. I have also made a point to look through the various art periodicals.

I frequently write away to the exhibitions that interest me. In two years my work has been shown at three national exhibitions, an invitational exhibition,



and a regional exhibition. Most exciting for me was "Quilt National '81" in which my quilt was published as a result of the show.<sup>4</sup>

I made several visits to New York City during this time, and spent the summer between my first and second year at R.I.T. working in a textile showroom called Papiers Peints. There I learned a great deal about the textile industry. I took every opportunity during my stay in New York to visit both historical and contemporary art exhibitions. One of particular interest to me was an exhibit of antique Baltimore Album Quilts at the Metropolitan Museum of Art.

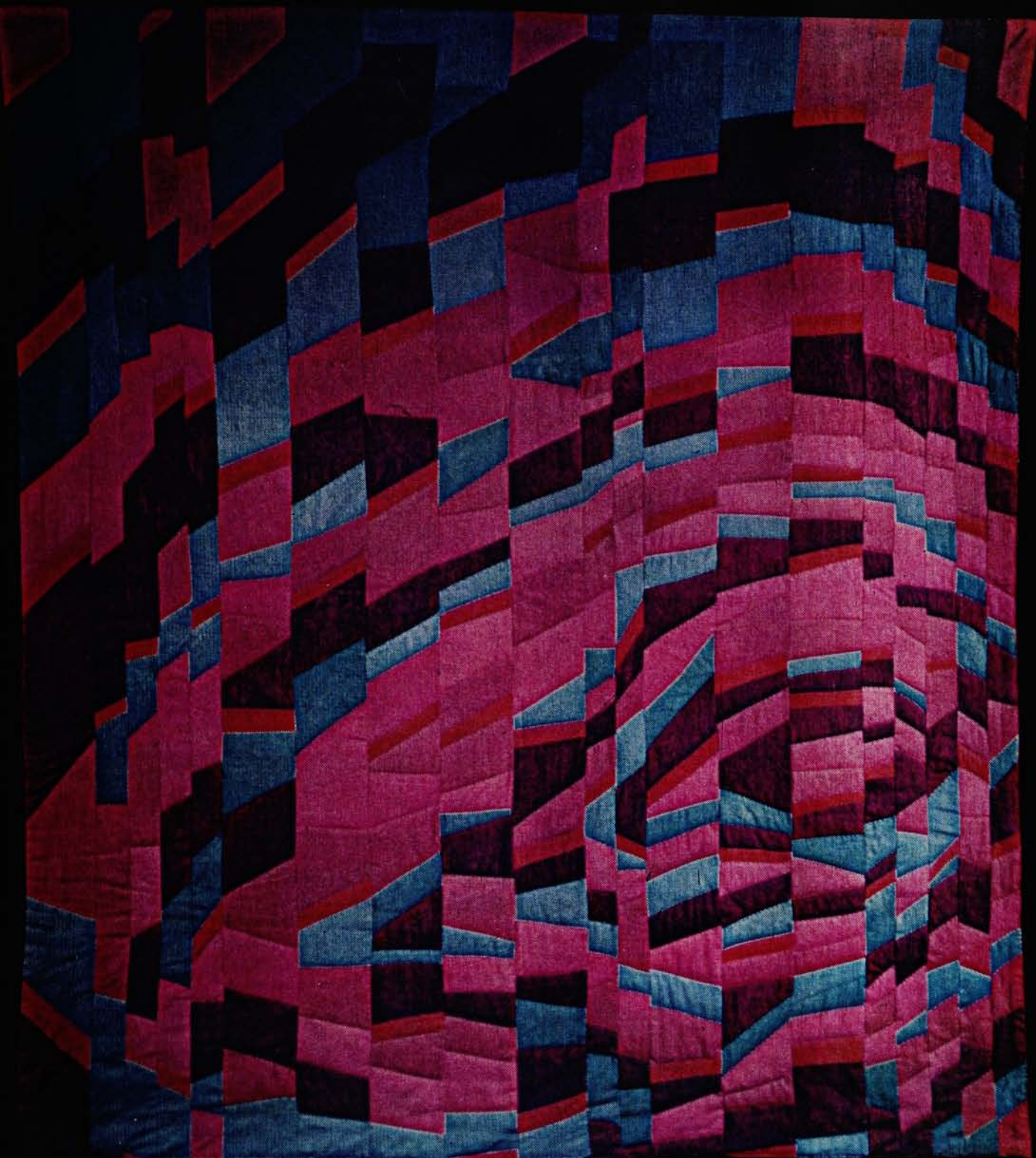
I would be so happy if my work could always transform and evolve from one piece to the next, and that my influences and rewards will always be as great.



"Life Cycle of a Silkworm"  
70"x70". Hand quilted and  
painted silk. 1980.

Figure 1

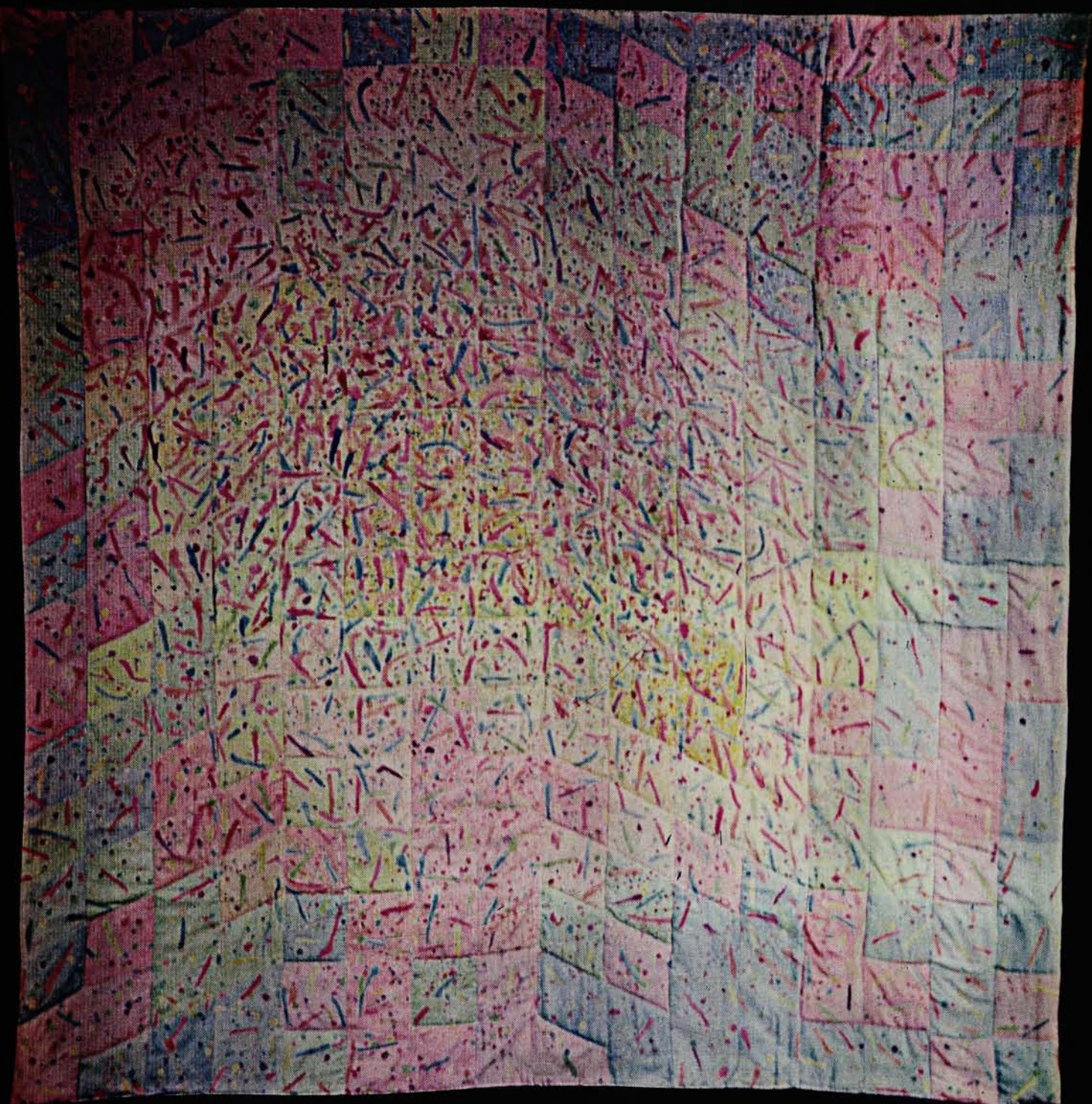




Untitled. 72"x64". Silk,  
hand quilted. 1982.

Figure 2





Untitled. 68"x68". Batik  
and Hand painted silk. 1982.

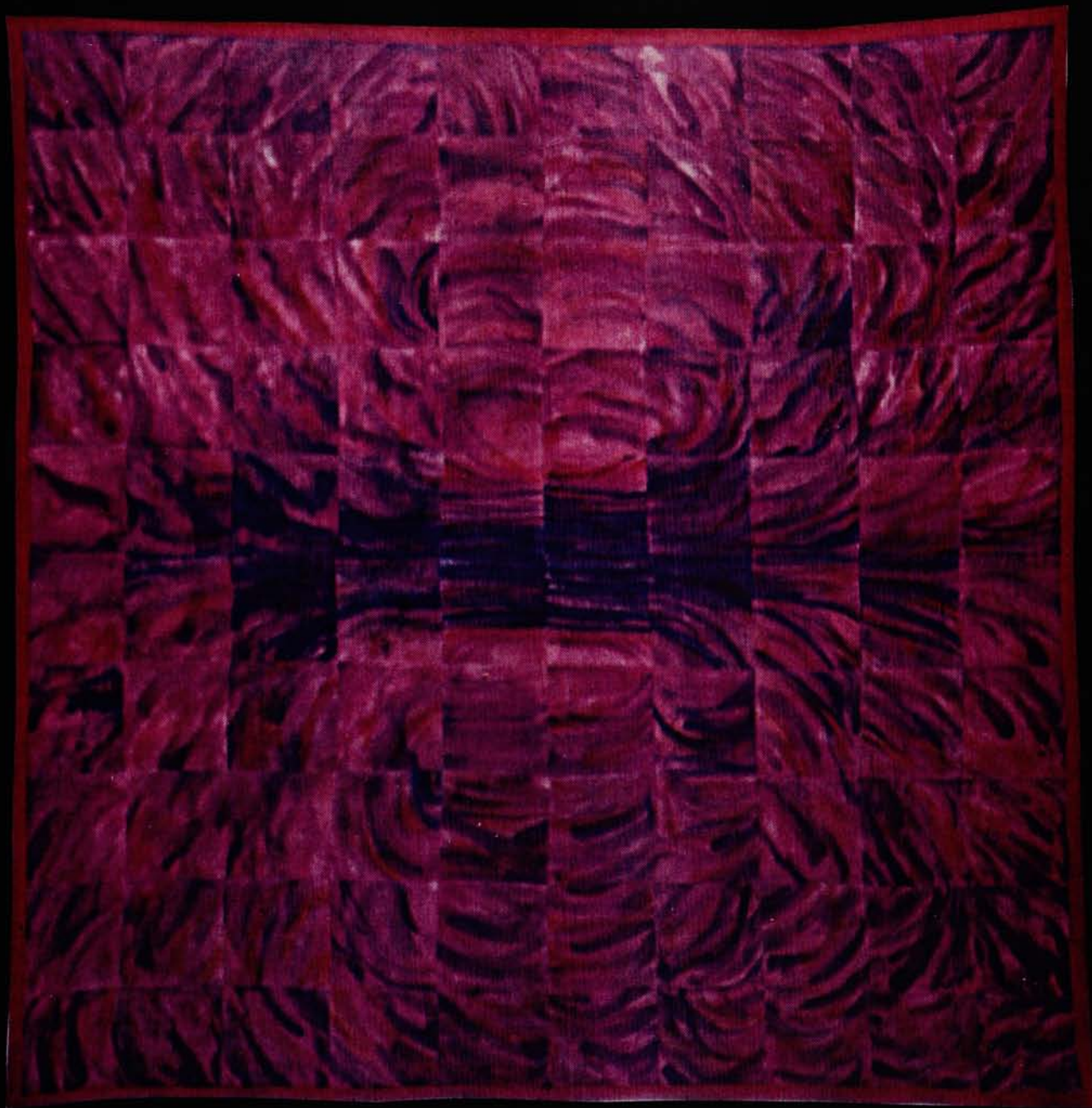
Figure 3





Detail of Figure 3.





"Magnetic Field I". 56"x56".  
Hand quilted and painted  
silk. 1981.

Figure 4





"Magnetic Field II". 60"x50".  
Intaglio on cotton. 1982.

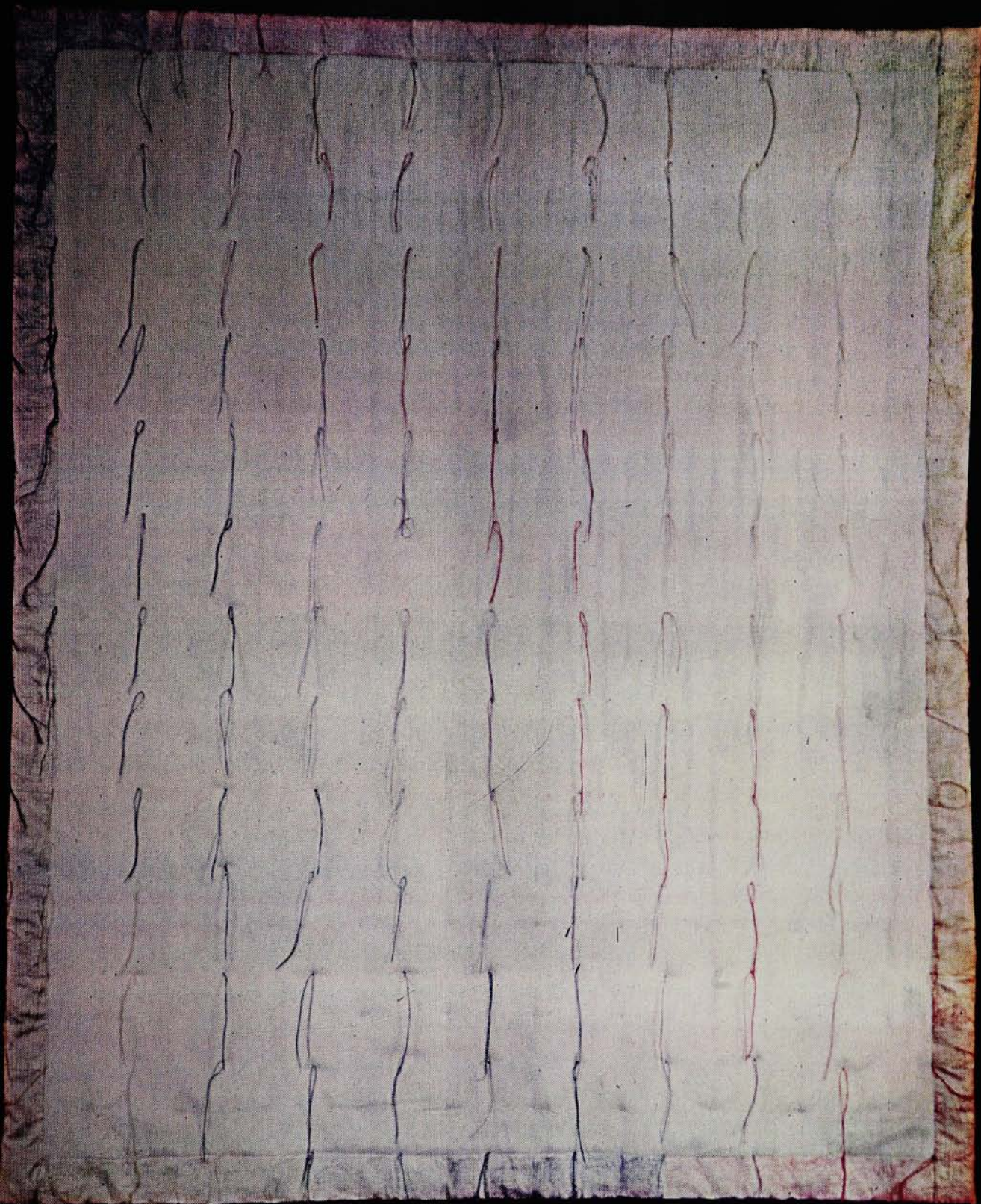
Figure 5





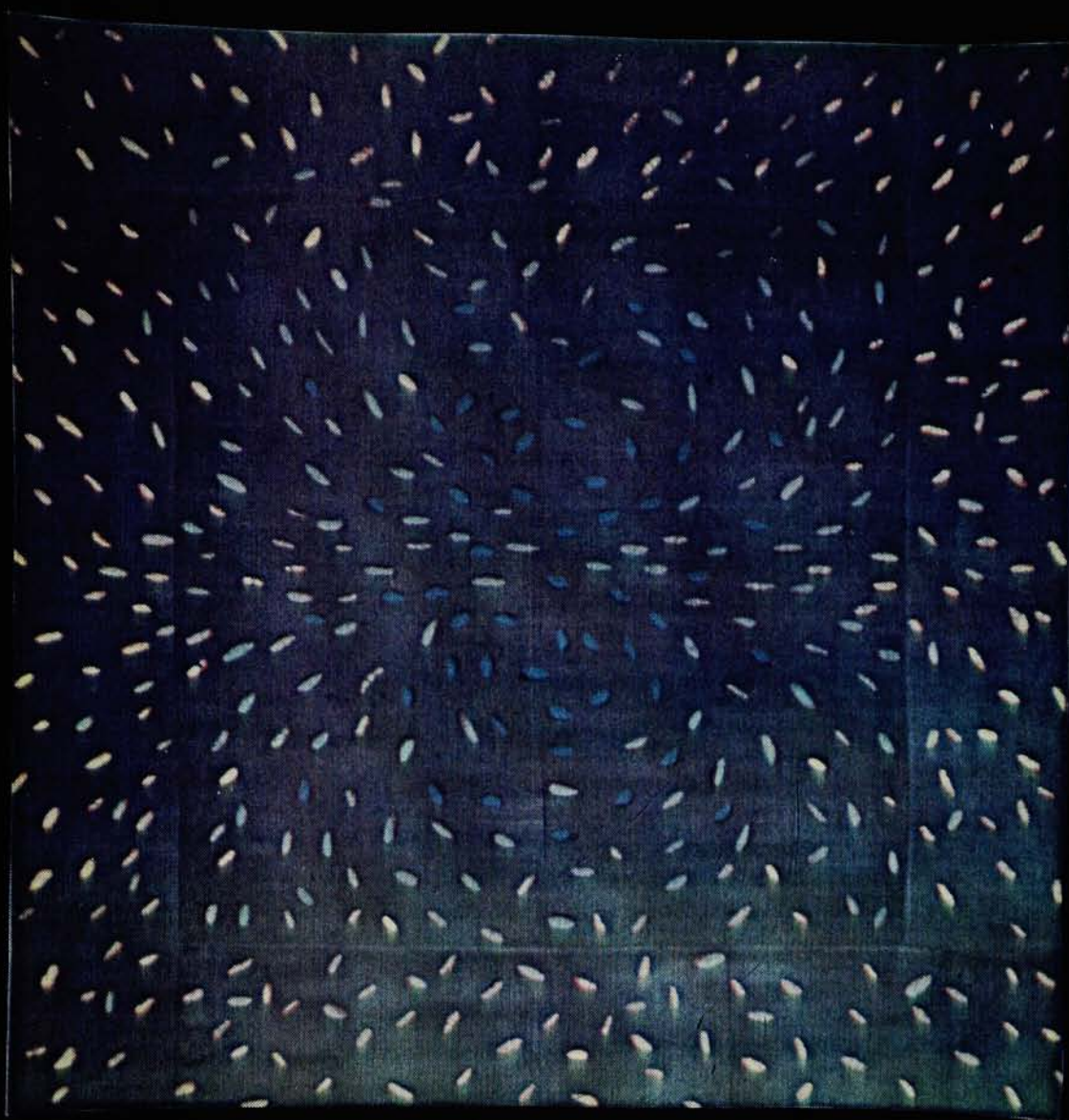
Detail of Figure 5.





Back of Figure 5.

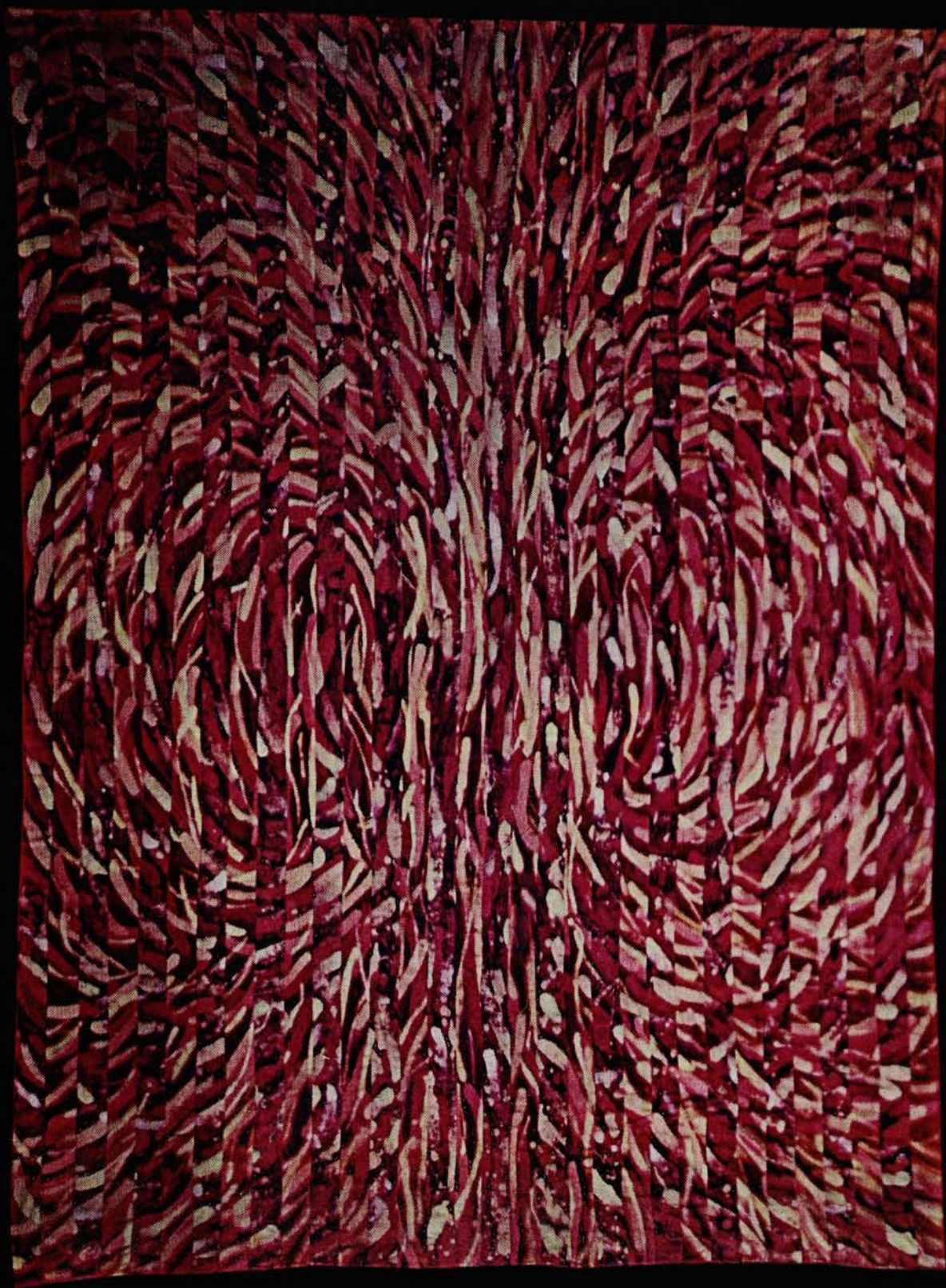




"Magnetic Field III".  
70"x70". Batik on Silk. 1982.

Figure 6

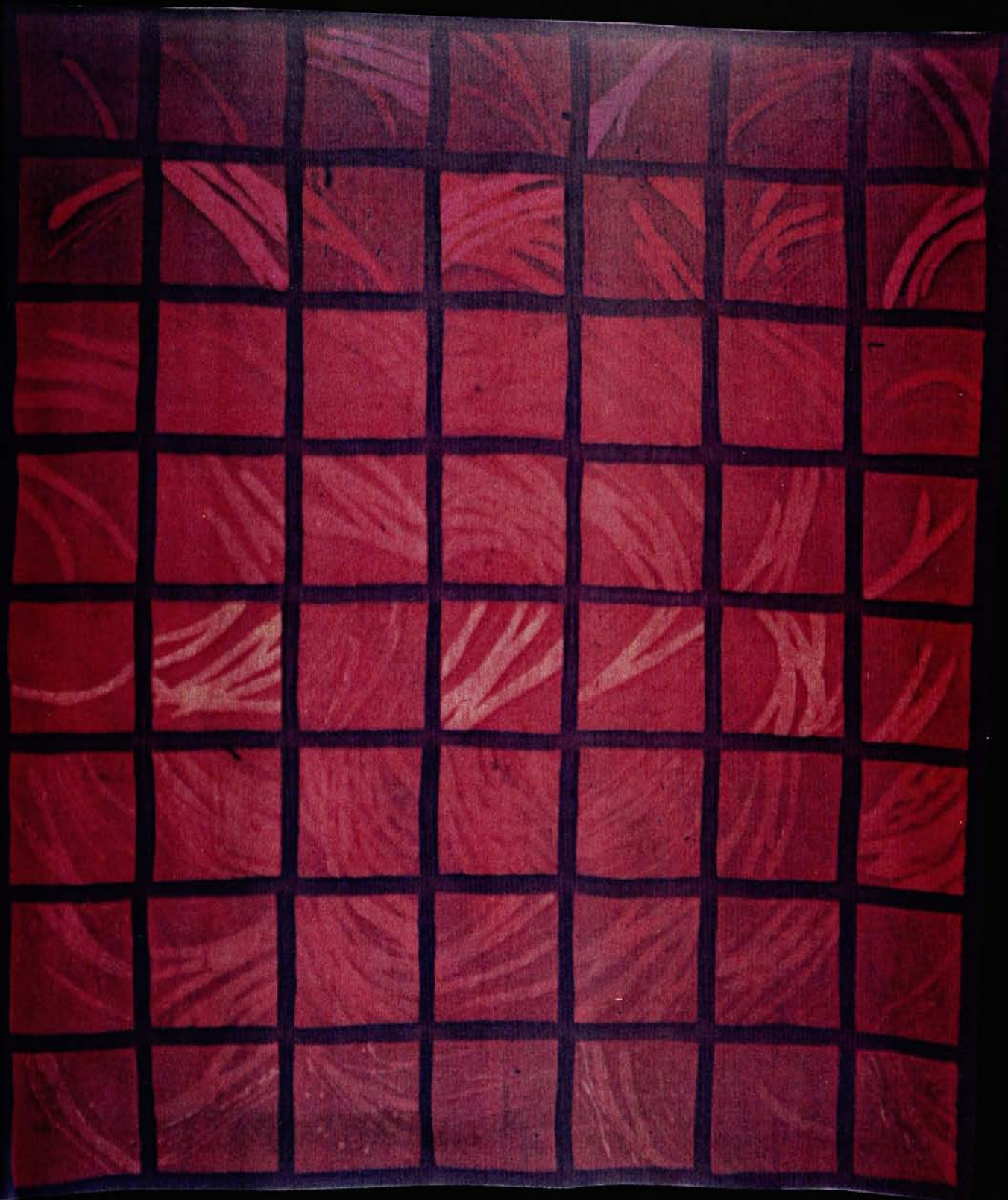




"Magnetic Field IV". 82"x62".  
Batik on silk, Hand quilted.  
1982.

Figure 7





Untitled. 80"x70". Batik on  
Silk, Hand painted. 1981.

Figure 8



## Footnotes

<sup>1</sup>Nathan Cabot Hale, Abstraction in Art and Nature (New York:Watson-Guptill Publications, 1972), p.62.

<sup>2</sup>Theodore Schwenk, Sensitive Chaos, trans. Olive Whicher and Johanna Wrigley (New York:Schocken Books, 1976), p.49.

<sup>3</sup>Peter Stevens, Patterns in Nature (Boston:Little Brown, 1974), p.62.

<sup>4</sup>The New American Quilt (Ashville, North Carolina: Fiberarts/Lark Book in conjunction with Quilt National, a division of Lark Communications Corp., 1981), p.47.

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